PHOTOGRAPHIC INTERPRETATION REPORT



## SIGNIFICANT RAILROAD BRIDGE AND RAIL YARD RESTORATION

**NORTH VIETNAM** 

NPIC/R-68/69 AUGUST 1969

**Declass Review by NIMA/DOD** 

GROUP 1 EXCLUDED FROM AUTOMATIC DOWN GRADING AND DECLASSIFICATION

# Approved For Release 2001512/05ETCIA-RDX 18804560A006600010006-88/69

#### SUMMARY

The North Vietnamese are engaged in the repair and reconstruction of railroad bridges and rail yards in an effort to restore and maintain the rail system previously subjected to intensive airstrikes. While concentrated rail repair efforts during the bombing period kept the rail system serviceable, even the best of these repairs were of a temporary nature. Such temporary measures as bypass bridges, rail ferries, and temporary bridge reconstruction were used rather than permanent repair of the original bridge structures. In many cases these temporary measures are still being used and many original bridges listed as reconstructed are of less than permanent construction. Repairs of a more permanent nature have been observed since the bombing halt. These include the complete restoration of numerous original bridge structures.

The tracks of critical rail yards have been repaired, although many associated facilities such as warehouses have not been replaced.

#### BASIC DESCRIPTION

### RAILROAD BRIDGE SERVICEABILITY

During the bombing, the operational status of the rail system in at least the northern portion of North Vietnam was maintained primarily through expedient rail repair. The primary factors contributing to the continued serviceability of the rail system were the maintenance of operational bridge crossings through the use of multiple bypass rail bridges and temporary rapid rail bridge repair. In areas where repair was not feasible, as over larger streams, rail ferries were utilized. These were particularly useful across the Red River at Hanoi and across the Riviere Claire at Viet Tri.

Repair or reconstruction has been observed at 18 of the 28 significant river crossings covered in this report. The rail bridges at Lao Cai and Thanh Hoa were never destroyed by airstrike (Figure 1 and Table 1). At eight locations the original bridge remains unserviceable with no reconstruction evident and temporary bypass rail bridges are still in use. Bridges at 14 locations have been replaced at the site of the original destroyed bridge (Figures 1-3) and existing bypass rail bridges are being maintained at some of these sites. Bridges are being reconstructed at four original sites and at three of these sites, located north of Vinh, adjacent bypass rail bridges remain operational (Figure 4).

## Approved For Release 2001/11/05 : SEARED 78B04560 A006600010006 PIC/R-68/69 NO FOREIGN DISSEM EXCEPT

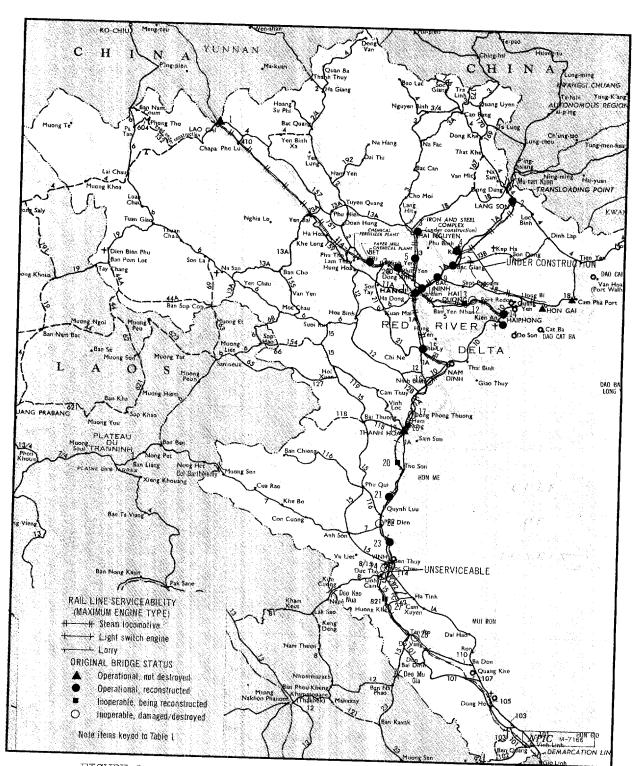
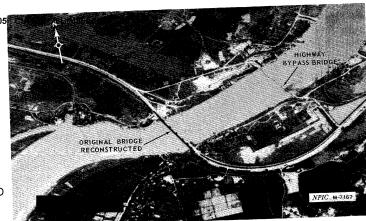


FIGURE 1. SELECTED MAJOR RAILROAD BRIDGES, NORTH VIETNAM

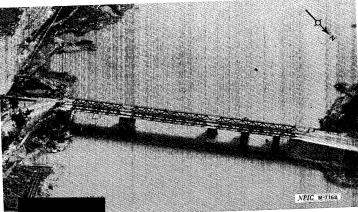
				101 - 7 13	and Drift	was North Vietnam			25X1	IA
			25X4A	Table 1. Significant Railz			10006-7-1	nates	BE Number	Remarks
tem	Place Name	Geo. Coordinates	BE Number	Remarks	Item		20-32-50N			Original bridge is reconstructed
1	Ho Kou Railroad/Highway Bridge over the Nan Chi	22-30-25N 103-58-09E		Original bridge is operational (bridge was never struck).	15	Phu Ly Railroad Bridge over the Song Lap				and operational. One bypass rail bridge is operational. Original bridge is unserviceable.
2	River, Lao Cai Lang Son Railroad/Highway Bridge over the Song Ky Cun	21-50-52N 106-45-42E		Original bridge is reconstructed and operational. Three bypass rail bridges are unserviceable	16	Ninh Binh Railroad/Highway Bridge over the Song Day	20-15-40N			No reconstruction is observed. One bypass rail bridge is operational.
3	Iang Lau Railroad Bridge over the Song Cau	21-33-07N 105-53-48E		Original bridge is reconstructed and operational. One bypass rail bridge is unserviceable.	17	Dong Phong Thuong Bail- road/Eighwey Bridge over the Song Len	19-58-39N	105-50-50E		Original bridge is unserviceable. No reconstruction is observed. One bypass rail bridge is serviceable and one is under a construction.
Ц	Dong Muc Railroad Bridge over the Song Thuong	21-27-16N 106-14-13E		Original bridge is operational. One bypass rail bridge is probably operational.	18	Phuong Dinh Railroad/High- way Bridge over the Lach Truong	19-51-03N	105-48-17E		Original bridge is being reconstructed. Two bypass rail bridges are operational.
5	Ha Gia Railroad Bridge over the Song Cong	21-19-36N 105-52-40E		Original bridge is reconstructed and operational. One bypass rail bridge is unserviceable.	19	Thanh Hoa Railroad/Highway Bridge over the Song Ma	19-50-12N	105-47-54E		Original bridge is operational (bridge was never completely destroyed by airstrikes).
6	Viet Tri Railroad/Highway Bridge over the Riviere Claire	21-17-55N 105-26-58E		Original bridge is reconstructed and operational. No bypass rail bridges are observed.	20	Thi Long Railroad Bridge over the Suci Cay Gang	19-31-50N	105-42-50E		Original bridge is probably being reconstructed. One bypass rail bridge is operational and one is un- serviceable.
7	Bac Giang Railroad/Highway Bridge over the Song Thuon	21-16-28W 105-11-24E	25X1/	Original bridge is reconstructed and operational. Two bypass rail bridges are unserviceable.	21	Qui Vinh Railroad Bridge over the Song Hoang Mai	19-15-45N	105-41-201	25X	1A Original bridge is reconstructe and operational. One bypass rail bridge is operational and
8	Dai Loi Railroad Bridge ov the Song Ca Lo			Original bridge is reconstructed and operational. One bypass rail bridge is unserviceable and one is of undetermined status. Original bridge is reconstructed	22		18-58-20W	105-34-55	Ξ	two are unserviceable.  Original bridge is unserviceabl One bypass rail bridge is operational and two are un- serviceable.
9	Dap Cau Railroad/Highway Bridge over the Song Cau	21-12-15N 106-05-42F		and operational. One bypass rail bridge is serviceable and one is unserviceable.	23	Tam Da Railroad Bridge over the Song Cua Lo	18-50-53N	105-39-19	E	original bridge is reconstructe and operational. One bypass rail bridge is unserviceable.
10	Hanoi Railroad/Highway Bridge over the Canal Des Rapides	21-04-35N 105-54-46i	3	Original bridge is reconstructed and operational. One bypass rail bridge is operational and one is unserviceable.	24		18-35-44N	105-37-05		Original bridge has been destroyed and is unserviceable to bypess rail bridges are
11	Hanoi Railroad/Highway Bridge over the Red River			Original bridge is reconstructed and operational.  Original bridge is unserviceable	2	The Tueng Railroad Bridge	18-32-301	105-35-40		(1A observed.  Original bridge has been destroyed and is unserviceable
12	E Hai Duong Railroad/Highws Bridge East over the Song Rang	y 20-58-22N 106-23-29 y	E	Original bridge is unserviced. No reconstruction is observed. One bypass rail bridge is operational and two are unserviceable.	2	over the Song La Giang  Trai Hoi Railroad/Highway	18-21-37	N 105-36-5	8e	No bypass bridges are observed.  Original bridge is being reconstructed. No bypass
1	3 Hai Duong Pailroad/Highwa Bridge West over the Son Thai Binh	ay 20-56-33N 106-21-25 g	92	Original bridge is being reconstructed. One bypass rail bridge is operational and one is unserviceable.	2	Bridge over the Ngan Sau  7 Xom Hoai Railroad/Highway Bridge over the Rao No	18-17-20	n 105-38-3	OE	bridges are observed.  Original bridge is destroyed and unserviceable. One bypass rail bridge is operational.
1	h Haiphong Railroad/Highwa Bridge over the Song Tra Bac	y 20-51-08N 106-40-1	5E	Original bridge is reconstructe and operational. Two bypass rail bridges are unserviceable.		8 Thuong Phong Trang Railros Bridge over the Rao Nay	ad 17-54-41	N 106-00-0	9E	Original bridge is destroyed and unserviceable. One bypass rail bridge is operational.

Approved For Release 2001/11/05



25X1D

FIGURE 2. VIET TRI RAILROAD AND HIGHWAY BRIDGE OVER THE RIVIERE CLAIRE



25X1D

Approved For Release 2001/11/05: CIA-RDP78B04560A006600010006.7 and Highway Bridge Over the song tram backets. Highway bridge over the song tram backets.

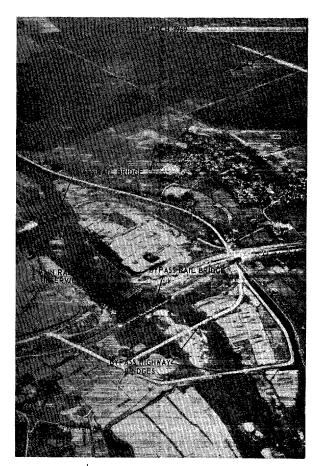




FIGURE 4. PHUONG DINH RAILROAD AND HIGHWAY BRIDGE OVER THE LACH TRUONG 25X1D

### RAIL YARD SERVICEABILITY

All major North Vietnamese rail yards, except the Hanoi and Haiphong rail yards, were heavily damaged during the bombing period. The most critical of these rail yards, such as those at Gia Lam and Yen Vien just north of Hanoi, have been repaired (Figure 6). These two yards receive material from China and the port of Haiphong for transloading and classification. At less critical rail yards, for example the Kep rail yards, only minimal through lines and bypass lines have been replaced (Table 2). The two major rail yards in the southern panhandle, Thanh Hoa and Vinh, have been restored and are very active (Figure 7).

- 5 -

25X1C

**SECRET** 

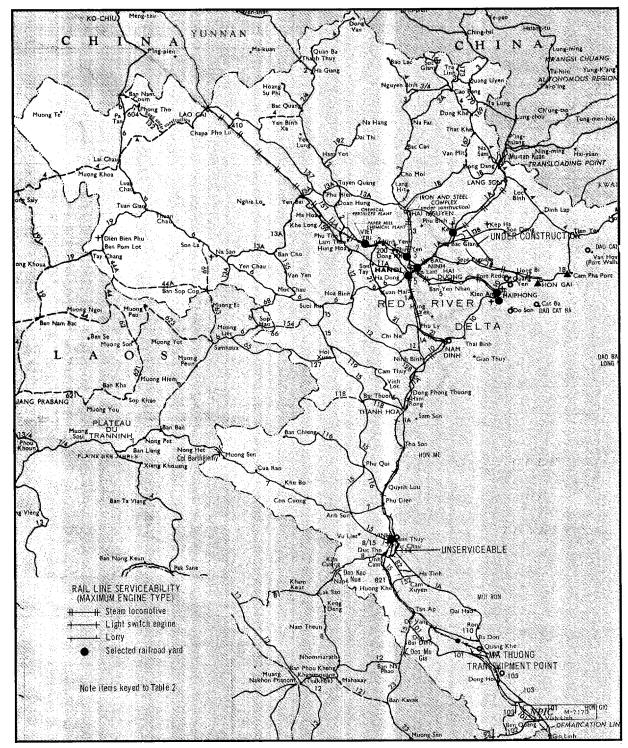


FIGURE 5. SELECTED RAIL YARDS

- 6 -

**SECRET** 

25X1C

25X1A
Table 2. Significant Rail Yards, North Vietnam

Item	Place Name	Geo. Coordinates	BE Number	Remarks
1.	Kep Railroad Yards	21-24-42N 106-17-22E		Yards remain extensively damaged from airstrikes. Two through lines and one bypass line are serviceable.
2	Viet Tri Railroad Yard	21-17-56N 105-26-13E		Yard has been reconstructed and is operational. Five lines are serviceable. A turning wye is under construction.
3	Kinh No Railroad Yard	21-09 <b>-</b> 12N 105-51-15E		Yard is fully operational. Large amount of assorted rolling stock and extensive off-loading of supplies are observed.
4	Yen Vien Railroad Yard	21-05-03N 105-55-12E		Yard has been repaired and is fully operational. Extensive activity is observed.
5	Hanci Railroad Station, Classification Yard, and Shops	21-01-07N 105-50-38E		Yard was never damaged and is fully operational. Extensive activity is observed.
6	Haiphong Railroad Station, Yard, and Shops	20-51-23N 106-41-37E		Yard was never damaged and is fully operational. Extensive activity is observed.
7	Vinh Railroad Station, Yard, and Shop	18-41-18N 105-40-05E		Rail yard has been repaired and is fully operational. It is the southern terminus of a continuous rail system.  Moderate activity is observed.

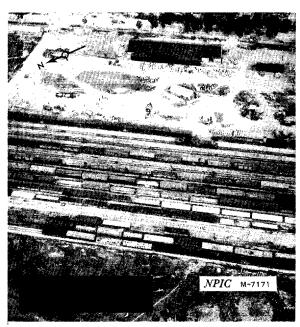
- 7 -

**SECRET** 

25X1C

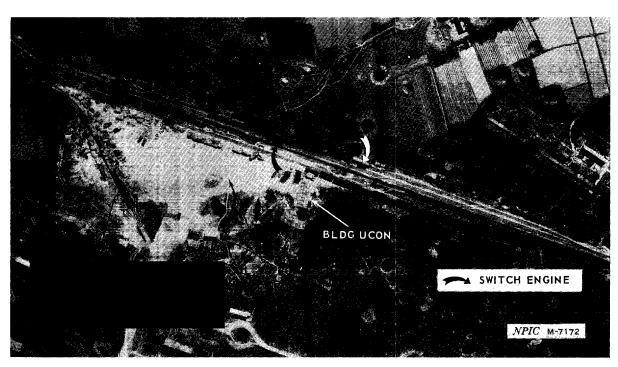
### RAIL LINE SERVICEABILITY

At present all North Vietnamese rail lines north of Vinh are operational. Light switch engines, as opposed to heavy steam locomotives, operate on the less substantial line between Thanh Hoa and Vinh. The low capacity line between the Song La, 9 nm south of Vinh, and the Ma Thuong Transshipment Point, south of Bai Duc Thon, is operational only to lorry and two-axle flatcar traffic. The western portion of the Kep to Hon Gai Rail Line remains under construction.



25X1D

FIGURE 6. YEN VIEN RAILROAD YARD RESTORED



25X1D

FIGURE 7. VINH RAILROAD STATION, YARD, AND SHOP

- 8 -

**SECRET** 

25X1C

### REFERENCES

IMAGERY

25X1D

MAPS OR CHARTS

CIA. Map 51738, Sep 65 (SECRET)

REQUIREMENT

NPIC Project 172002NA

- 9 -

25X1C

**SECRET**